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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/303,791 04/30/99 JOHNSON

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EXAMINER

MALCOLM, T

ART UNIT

PAPER NUMBER

3629

DATE MAILED:

10/03/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

## Office Action Summary

Application No.

09/303,791

Applicant(s)

JOHNSON, RORY, MATTHEW

Examiner

Tomlyne A Malcolm

Art Unit

3629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some \* c) ☐ None of the CERTIFIED copies of the priority documents have been:
1. ☐ received.
2. ☐ received in Application No. (Series Code / Serial Number) \_\_\_\_.
3. ☐ received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

### Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 18) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_.
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other:

## **DETAILED ACTION**

### ***Specification***

The disclosure is objected to because of the following informalities: page 7, line 27, "...adapter member 34...first end 19 of outer race 20 disposed around grease cap 32." In the drawings, the grease cap 32 is disposed around the outer race 20. On page 11, lines 24-25, "...cut-outs 58 and apertures 60..." should be "...cut-outs 60 and apertures 62...".

Appropriate correction is required.

### ***Claim Objections***

Claim 8 is objected to because of the following informalities: in line 12, "having crimping lip" should be "having a crimping lip". Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear whether Applicant is claiming the sub-combination

Art Unit: 3629

of a "boot" or the combination of a "boot" and a "boot-can connector", since Applicant positively limits the "boot-can connector" in line 7. Since claims 2-4 depend from claim 1, they are also rejected.

Claim 5 and 8 through 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear whether Applicant is claiming the combination of a "boot and a boot-can assembly" or the combination of "a boot, boot-can assembly and an outer race", since Applicant positively sites the "outer race" in line 19. Since claims 6-7 depend from claim 5, they are also rejected.

Claim 8 recites the limitations "said outer race" in line 10; "the second end" in line 13; "the annular lip" in line 14. There are insufficient antecedent bases for these limitations in the claim. Since claims 9 and 10 depend on claim 8, they are also rejected.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 through 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Riemscheid, U.S. Patent No. 4,403,781. Riemscheid discloses a boot comprising

Art Unit: 3629

of a cylindrical neck member (11); an annular member having a longitudinal axis (9) and a crimping lip (12) for being received by a boot can connector (13). Riemscheid lacks the teaching of the of the crimping lip having a plurality of radially distributed apertures which are oriented parallel to the longitudinal axis. It would have been obvious to one of ordinary skill in the art to include a plurality of radially distributed apertures in the crimping lip to increase the compressibility of the crimping lip since it is common knowledge that holes or cut-outs in a structure removes excess material which in turn would promote easier compressibility because there is less material to be compressed.

As to claims 2 and 3, it would have been obvious to one of ordinary skill in the art to provide circumferentially spaced apart holes or cut outs as the apertures on the crimping lip, as a matter of design choice since they both remove excess material and allow for easier compressibility .

Claims 4 through 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Riemscheid in view of Umeno, U.S. Patent No. 5,599,029.

As to claim 4, Umeno teaches an annular member formed of a thermoplastic material ( column 2, lines 24-25 ). It would have been obvious to one of ordinary skill in the art to form the annular member out of thermoplastic material since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use .

As to claim 5, Riemscheid discloses a boot and boot-can assembly comprising of a boot-can connector (13) having a first end ( Fig. 1, left of 1), a boot having an annular member and a crimping lip. Riemscheid lacks the teaching of the boot being formed of thermoplastic material and the crimping lip having a plurality of radially distributed apertures. Umeno teaches a boot formed of a thermoplastic material ( column 2, lines 24-25 ). It would have been obvious to one of ordinary skill in the art to form the annular member out of thermoplastic material since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use. . It would have been obvious to one of ordinary skill in the art to include a plurality of radially distributed apertures in the crimping lip to increase the compressibility of the crimping lip since it is common knowledge that holes or cut-outs in a structure removes excess material which in turn would promote easier compressibility because there is less material to be compressed.

As to claims 6 and 7, it would have been obvious to one of ordinary skill in the art to provide circumferentially spaced apart holes or cut outs as the apertures on the crimping lip, as a matter of design choice since they both remove excess material and allow for easier compressibility .

As to claim 8, Riemscheid discloses a constant velocity joint assembly comprising of a boot-can (13) having a first end ( Fig. 1, left of 1), a rolling-diaphragm boot ( Fig.1) having a crimping lip (12). Riemscheid lacks the teaching of the boot being made of thermoplastic material and the crimping lip having a plurality of radially

distributed apertures. Umeno teaches a boot formed of a thermoplastic material ( column 2, lines 24-25 ). It would have been obvious to one of ordinary skill in the art to form the annular member out of thermoplastic material since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use. It would have been obvious to one of ordinary skill in the art to include a plurality of radially distributed apertures in the crimping lip to increase the compressibility of the crimping lip since it is common knowledge that holes or cut-outs in a structure removes excess material which in turn would promote easier compressibility because there is less material to be compressed.

As to claims 9 and 10, it would have been obvious to one of ordinary skill in the art to provide circumferentially spaced apart holes or cut outs as the apertures on the crimping lip, as a matter of design choice since both remove excess material and allow for easier compressibility.

As to claim 11, Riemscheid discloses a constant velocity joint and propeller shaft comprising of a propeller shaft (9) having a first end , a constant velocity universal joint (Fig.1) including an outer race (1) having a first face (5), a boot can (13) having a large diameter and small diameter flanged ends, a boot having a sealing end (12) , a tubular stem portion (11) and an annular upturned edge (12), and the sealing end cooperating with the propeller shaft to provide a seal therewith ( Fig.1, area under A). Riemscheid lacks the teaching of the boot being made of thermoplastic material and the upturned edge having a plurality of radially distributed apertures. Umeno teaches a boot formed

Art Unit: 3629

of a thermoplastic material ( column 2, lines 24-25 ). It would have been obvious to one of ordinary skill in the art to form the annular member out of thermoplastic material since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use. . It would have been obvious to one of ordinary skill in the art to include a plurality of radially distributed apertures in the upturned edge to increase the compressibility of the upturned edge since it is common knowledge that holes or cut-outs in a structure removes excess material which in turn would promote easier compressibility because there is less material to be compressed.

As to claims 12 and 13, it would have been obvious to one of ordinary skill in the art to provide circumferentially spaced apart holes or cut outs as the apertures on the crimping lip, as a matter of design choice since they both remove excess material and allow for easier compressibility .

### ***Conclusion***


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tomlyne A Malcolm whose telephone number is 703-305-1566. The examiner can normally be reached on Monday through Friday from 7:30 am to 5:00 pm. The examiner can also be reached on alternate Mondays.



Art Unit: 3629

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne H Browne, can be reached on (703) 308-1159. The fax phone number for the organization where this application or proceeding is assigned is 703-305-3597.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-2168.



am

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